In the Claims

Claims 1-18 were previously cancelled.

19. Cancelled.

20. (Currently amended) ~~The communication system of Claim 19,~~ A communication system of interconnected networks, the system comprising:

a mobile receiver; and

two or more networks interconnected by at least one message handling node for routing data packets;

wherein, each of the data packets includes a logical destination code for identifying the receiver independently of a physical media address in each of the data packets, the logical destination code uniquely identifying the mobile receiver to each of the networks and remaining fixed as the mobile receiver changes networks;

wherein, at least one message handling node routes data packets to the mobile receiver based on the destination code, wherever the mobile receiver is located within the two or more interconnected networks; and

wherein ~~each~~ the at least one message handling node stores a table for looking up physical media routing information based on the logical destination code.

21. (Currently amended) The communication system of Claim ~~19~~ 20 wherein ~~each~~ the at least one messaging handling node routes the data packet based on the entire destination code.

22. (Currently amended) The communication system of Claim ~~19~~ 20 wherein the logic destination code is a globally unique identifier.

23. (Previously Added) The communication system of Claim 22 wherein the logical destination code is an Internet Protocol (IP) address.

SUB I'

24. (Previously Added) In a communications node of a system, a method for routing data packets comprising:

receiving a first data packet, the data packet including a unique logical code for identifying a mobile source of the data packet independently of the physical media over which the mobile source is communicating;

CONT I'

storing the logical code and associating it with a physical media path from which the first data packet was received;

receiving a second data packet, the second data packet including the logical code as identifying the mobile source as a destination of the second data packet;

looking up the physical media path associated with the logical code; and

forwarding the second data packet based on the stored physical media path.

25. (Previously Added) The method of Claim 24 wherein the logic code uniquely identifies the mobile source for routing data packets within public; interconnected networks.

26. (Previously Added) The method of Claim 25 wherein the logical code is an Internet Protocol (IP) address.

SUBJ'

27. (Previously Added) In a communications node of a system of interconnected networks, a method for routing data packets comprising:

storing a unique address for identifying a mobile receiver of a data packet anywhere within interconnected networks, independently of the physical media over which the mobile receiver is communicating;

associating the unique address with a physical media path;

receiving a data packet identifying the mobile receiver as a destination for the data packet by the unique address;

looking up the physical media path along which to forward the data packet using the entire unique address contained in the data packet; and

forwarding the data packet according to the physical media path.

CONT I'

28. (Previously Added) The method of Claim 27 wherein the logical code is an Internet Protocol (IP) address.

SUBJ'

32. (Previously Added) A communications node for routing data packets, each such data packet including a logical code for uniquely identifying a mobile source of each such data packet independently of the physical media over which the mobile source is communicating with the interconnected networks, the communications node including a packet routing device and data structure stored in a memory for associating a logical code of a first data packet sent by a mobile source with a physical media path identifier identifying the physical media path from which the first data packet was received; wherein, when the communications node receives a second data packet that includes the logical code as identifying the mobile source as a destination of the second data packet, the packet routing device

looks up in the data structure the physical media path identifier associated with the logical code and forwards the second data packet to the physical media path identified by the physical media path identifier.

33. (Previously Added) The communication system of Claim 32 wherein the logic code is a globally unique identifier.

34. (Previously Added) The communication system of Claim 33 wherein the logical code is an Internet Protocol (IP) address.

35. (Previously added) A communications node for routing data packets, each such data packet including a logical code for uniquely identifying a source of each such data packet independently of the physical media over which the source is communicating with the interconnected networks, the communications node including a packet routing device and a data structure stored in a memory for storing the logical code of a first data packet sent by a mobile source and associating it with a physical media path identifier to which the first data packet was forwarded by the communications node; wherein, when the communications node receives a second data packet, which includes the logical code as identifying the source, the packet routing device looks up in the data structure the physical media path identifier of the node associated with the logic code and forwards the second data packet to the node.

36. (Previously Added) The communication system of Claim 35 wherein the logic code is a globally unique identifier.

37. (Previously Added) The communication system of Claim 36 wherein the logical code is an Internet Protocol (IP) address.

38. (Previously Added) A communications node for connecting a plurality of networks comprising a packet routing device and a data structure for storing a logical address that uniquely identifies a host within the plurality of networks independently of physical media on which the host is communicating, the data structure associating the logical address with routing information for forwarding data packets containing the logical addresses; wherein the packet routing device includes a circuit for looking up routing information in the data structure for forwarding the data packet to the host using the entire logical address contained in the data packet.

39. (Previously Added) The communications network of Claim 38, wherein the circuit for looking up includes a circuit for determining an index into the table.

40. (Previously Added) The communications network of Claim 39, wherein the circuit for determining includes a device for arithmetically compressing the entire logical address.